MODULE V:

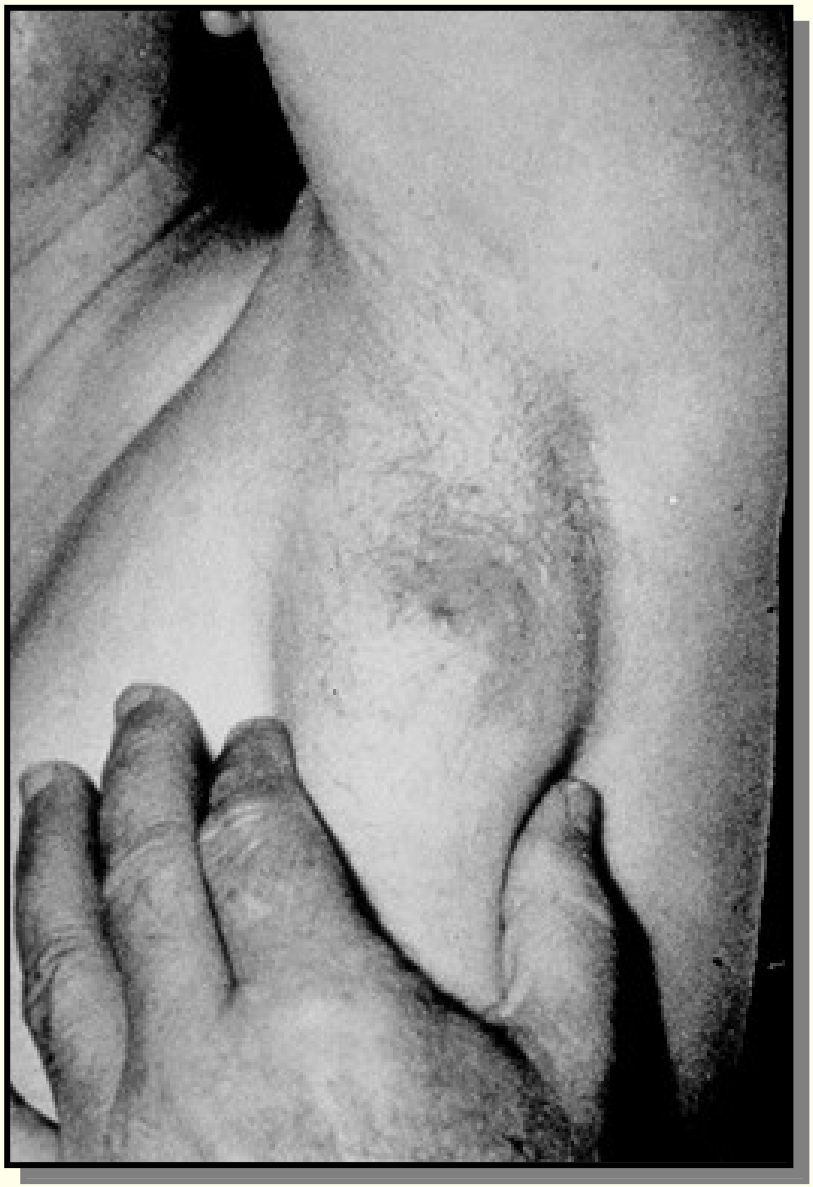
Workup of Abnormal Findings on Clinical Breast Examination

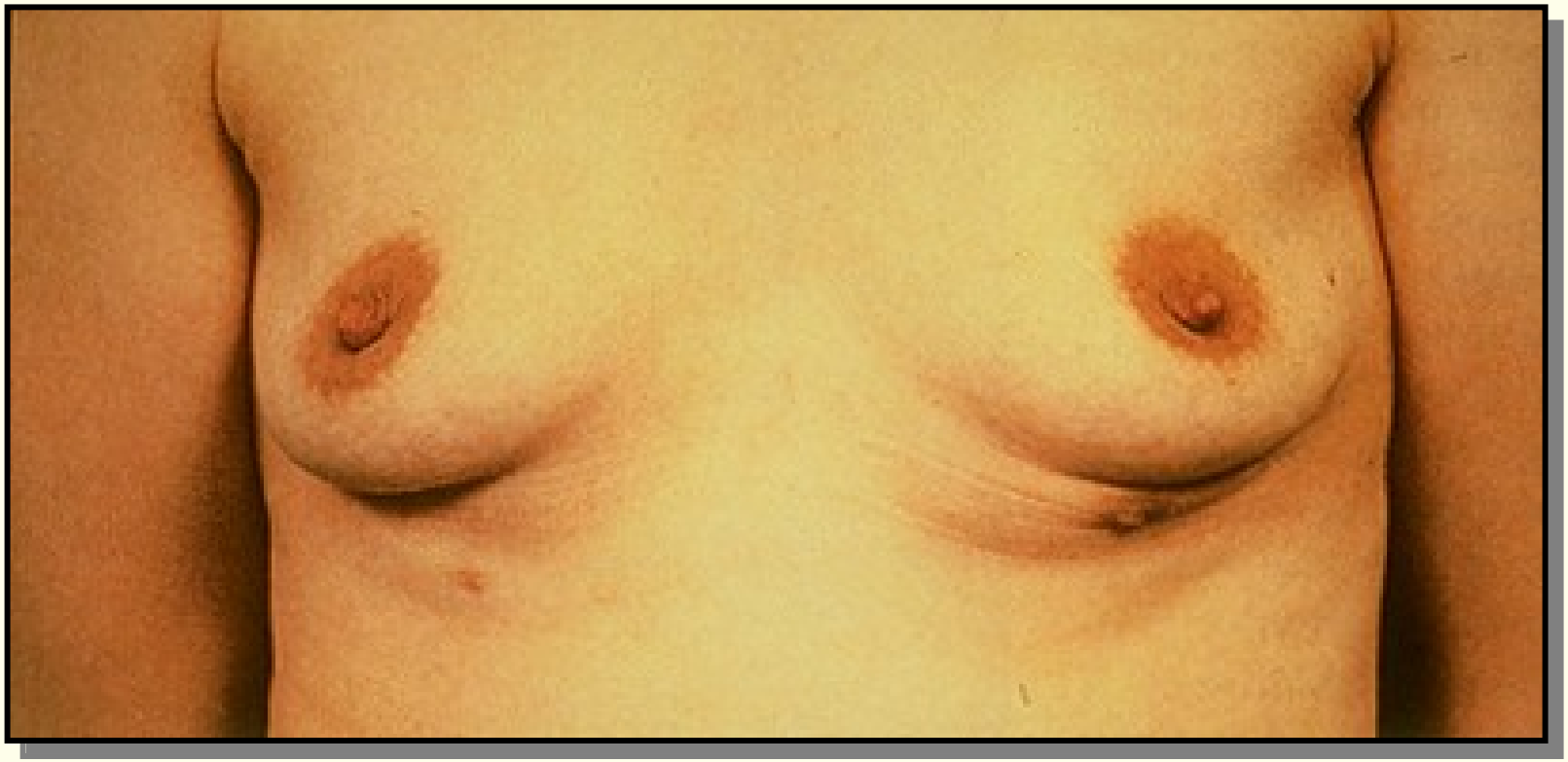
Findings on Clinical Breast Examination: Inspection

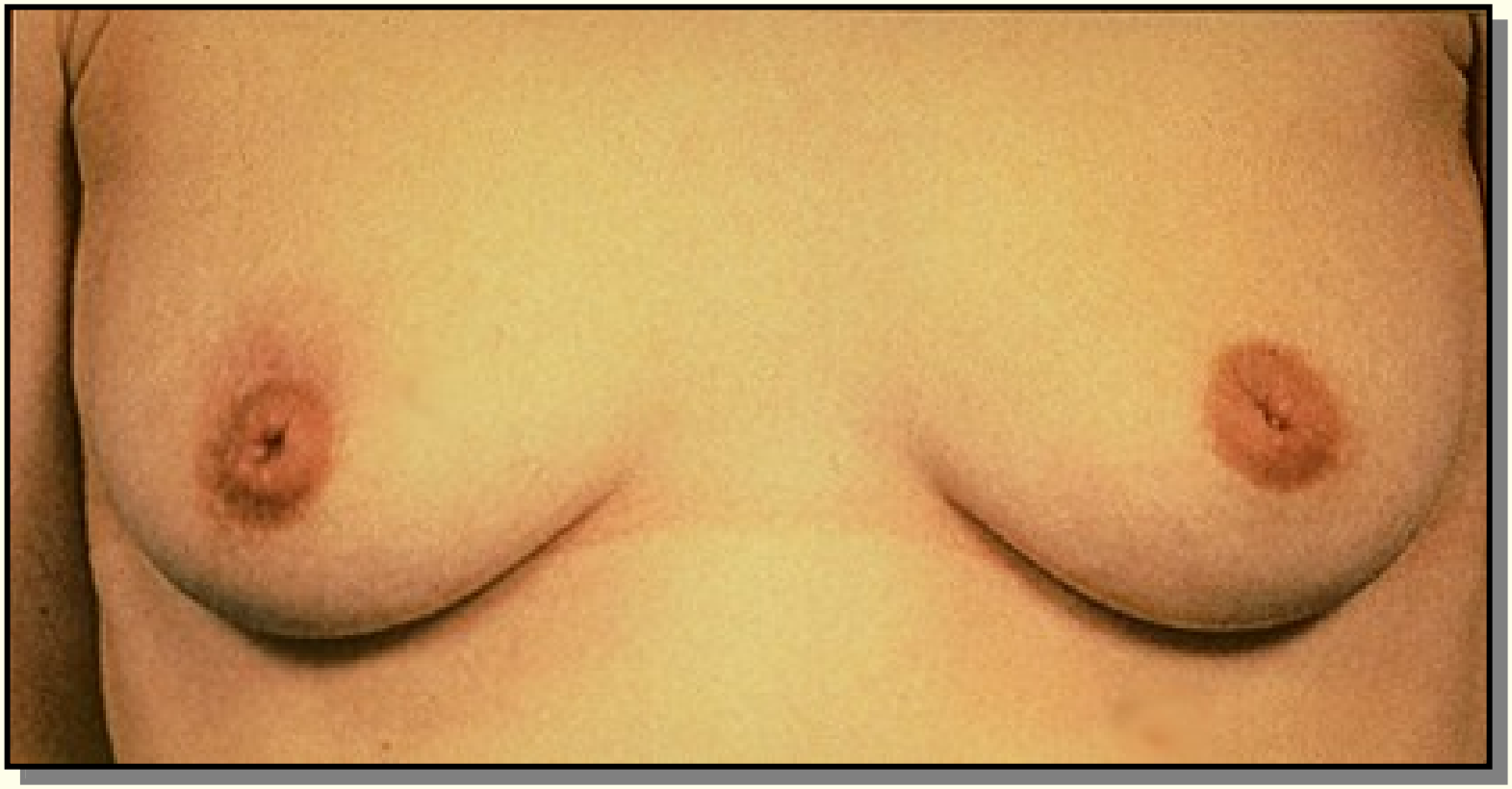
- Congenital
- Nipple changes
  - **Retraction**
  - **Scaling**
- Skin Changes
  - **Retraction**
  - **Shape**
  - **Dimpling**
  - **Peau d’orange**
  - **Erythema**

Abnormalities on Physical Examination: Congenital

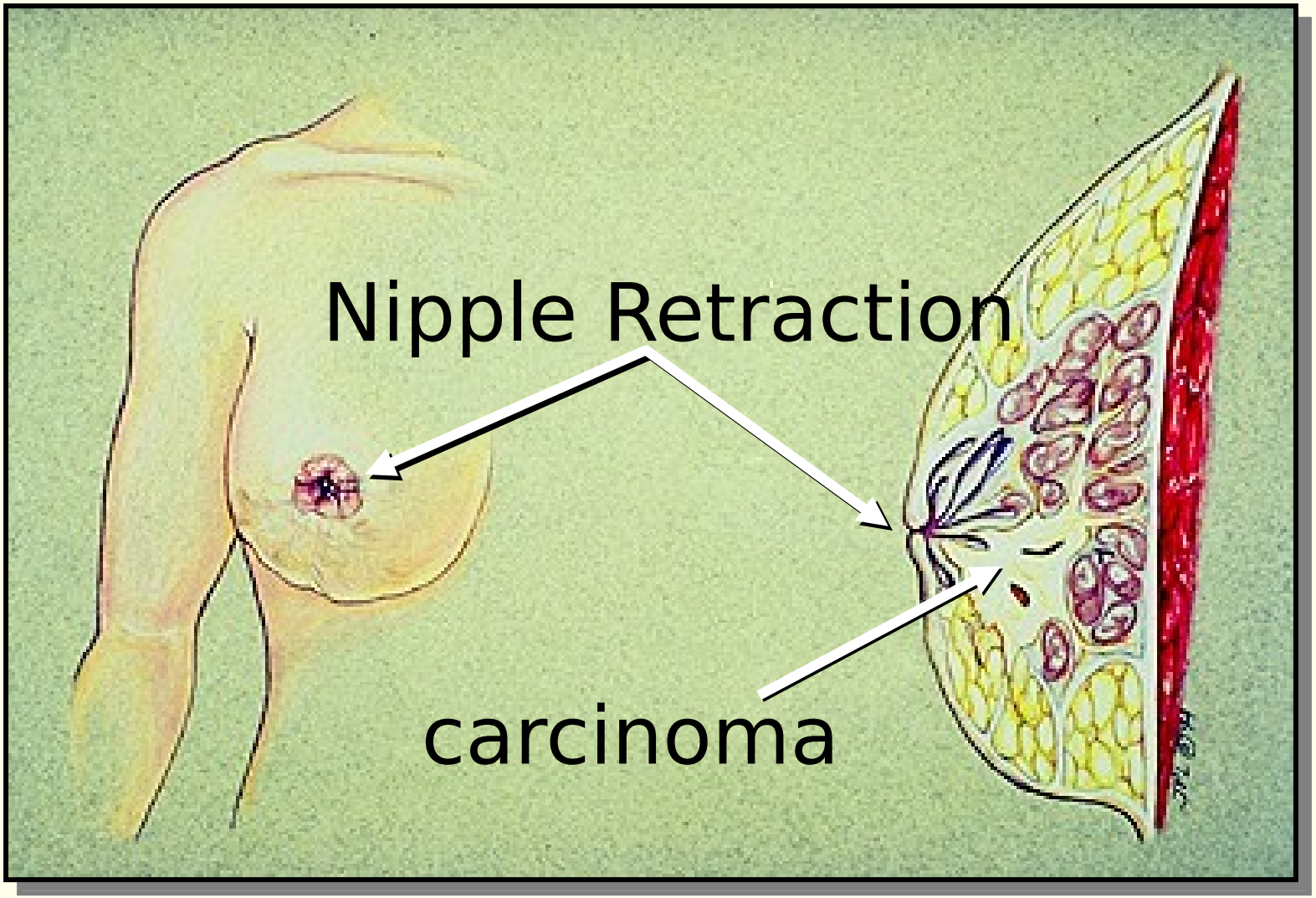
- Hypomastia/Poland’s Syndrome
- Supernumerary Breast
- Development Nipple Inversion

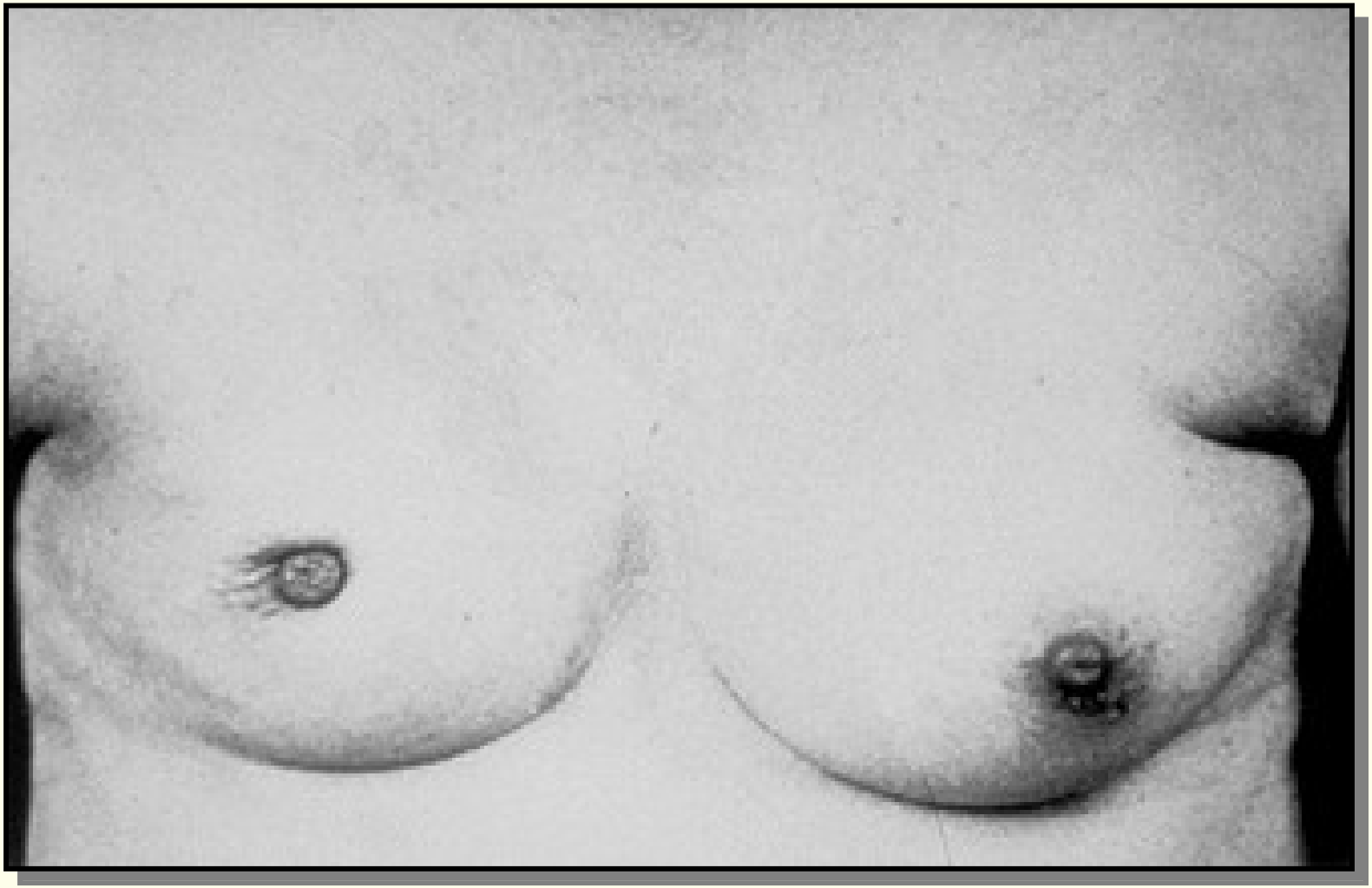


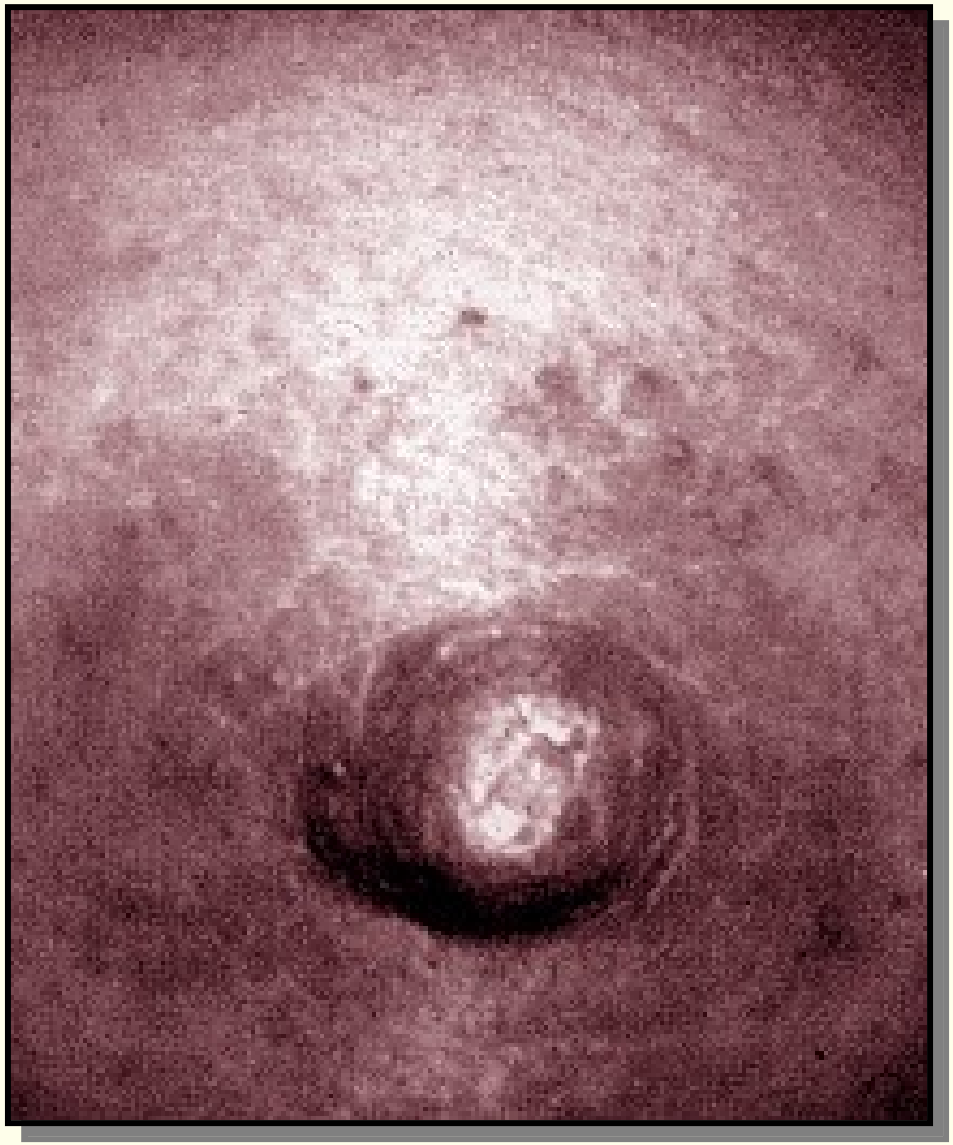




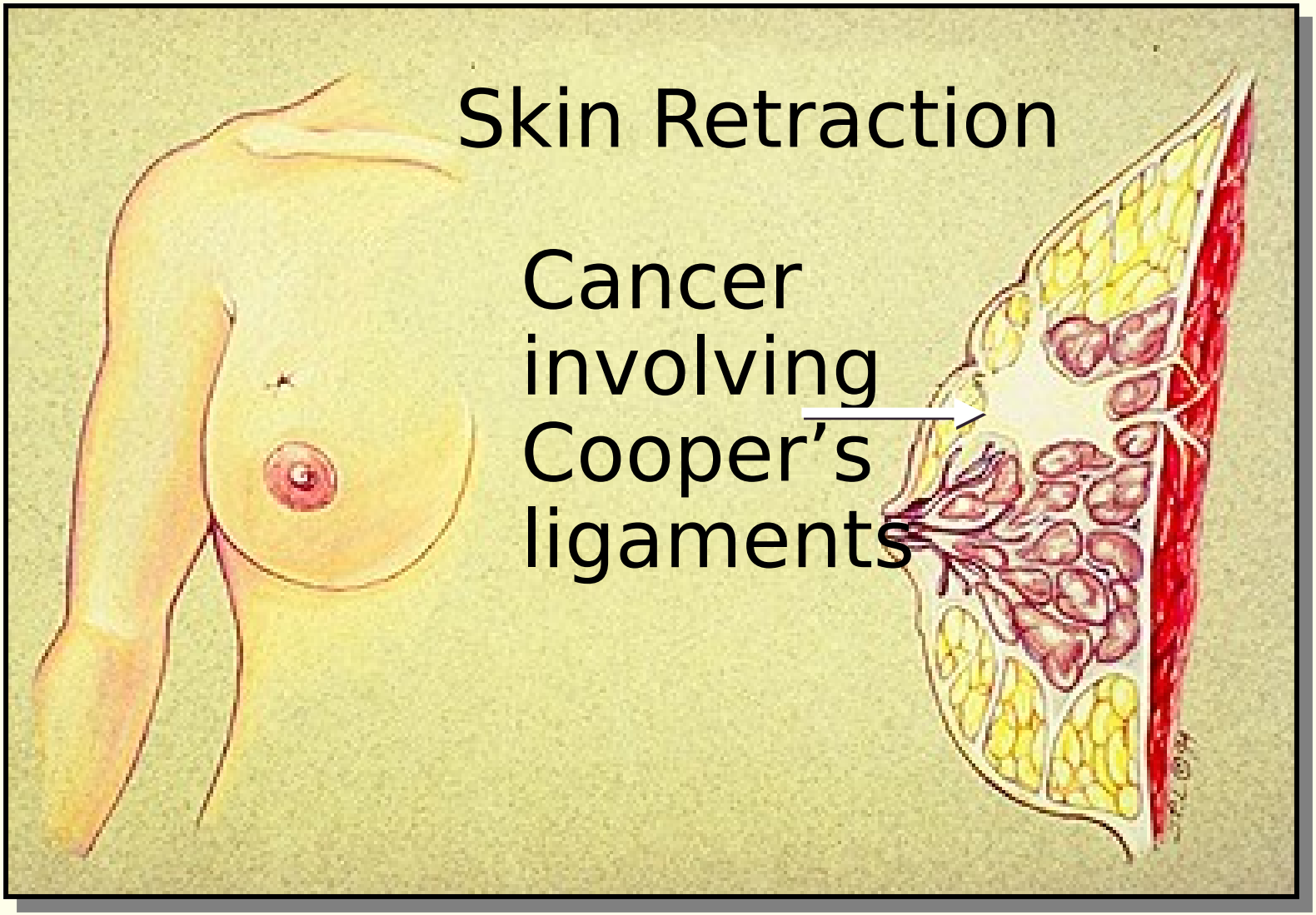
Nipple Changes

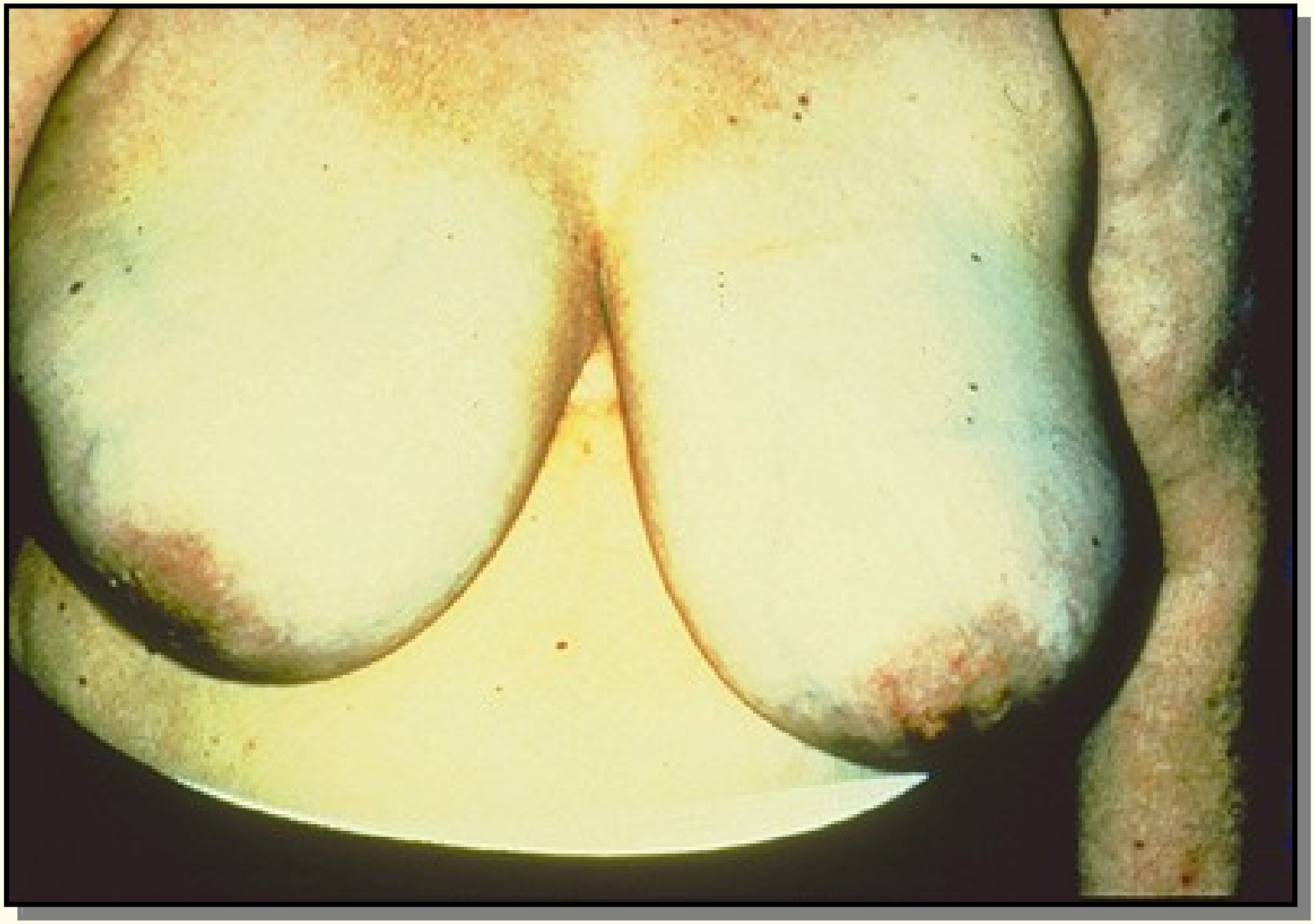

Nipple Retraction
carcinoma

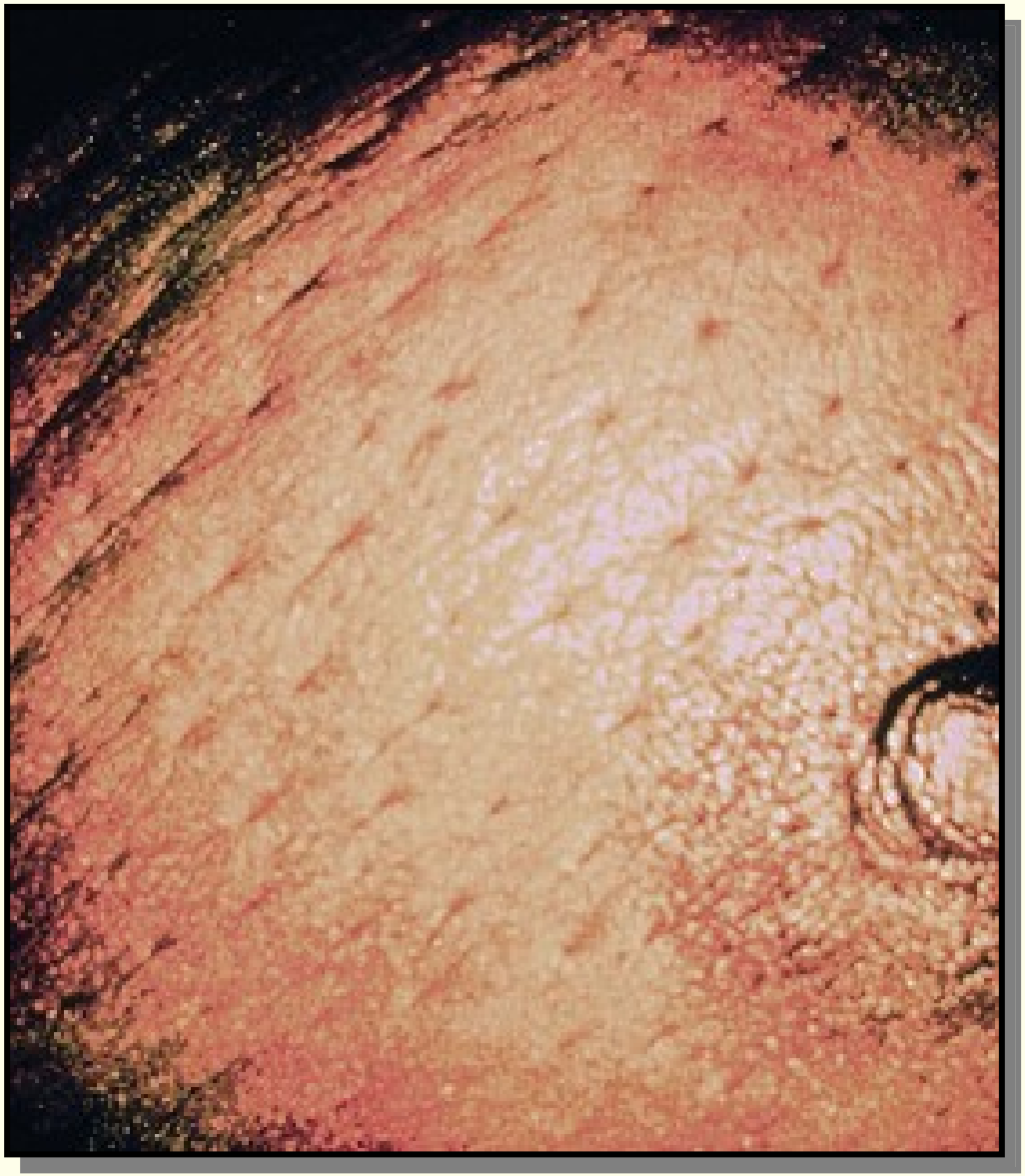




Skin Changes

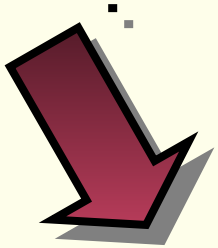

Skin Retraction
Cancer involving Cooper's ligaments





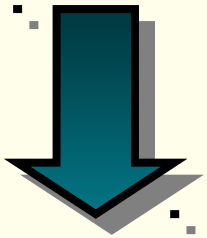
Nipple Discharge

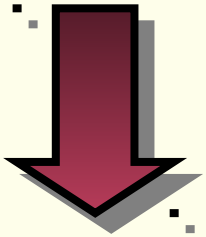
Nipple Discharge



Non-Spontaneous

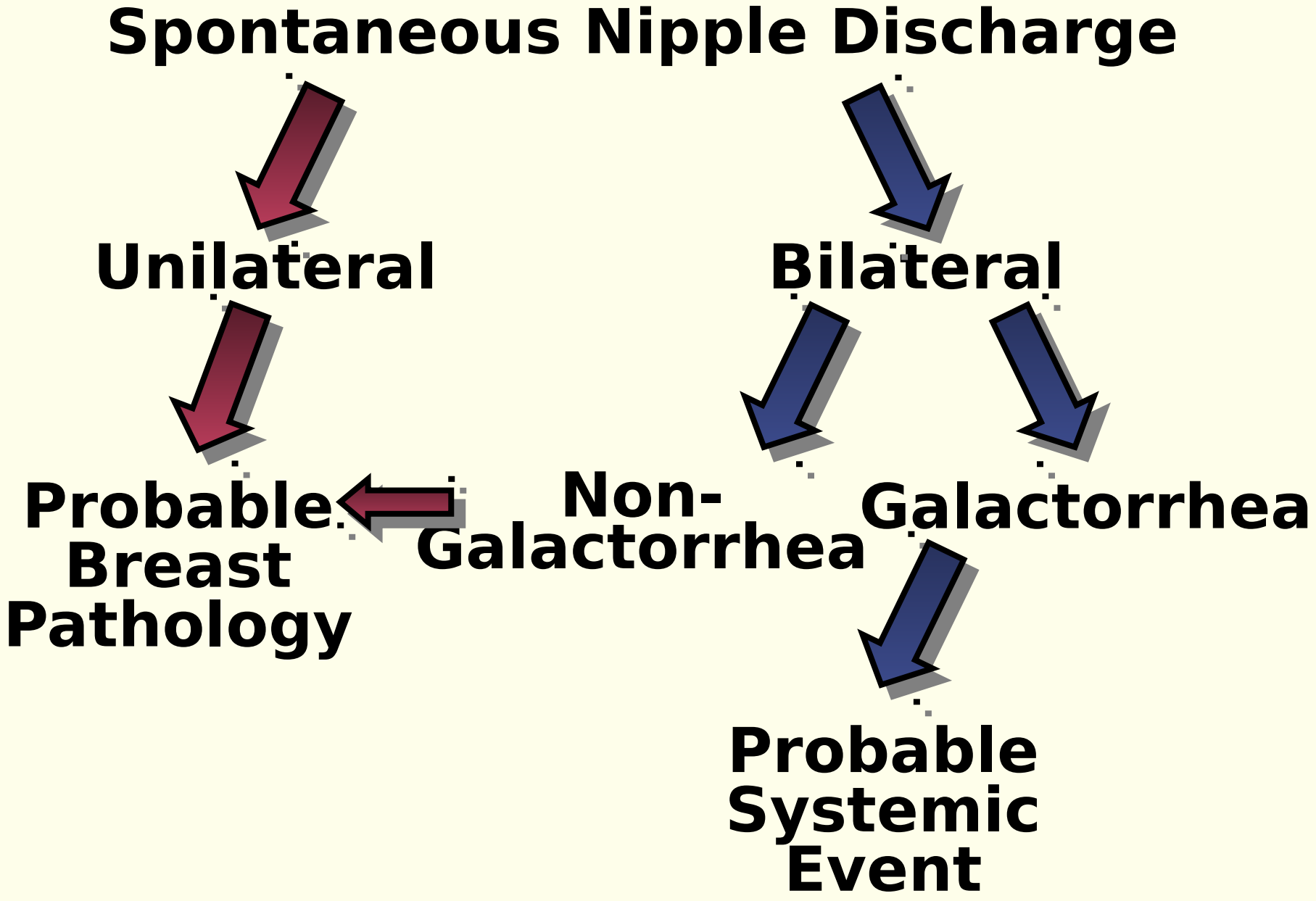
Spontaneous





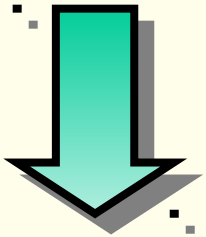
Normal Breast Secretions

Possible Pathology


Spontaneous Nipple Discharge
Unilateral
Bilateral
Probable Breast Pathology
Non-Galactorrhea
Galactorrhea
Probable Systemic Event

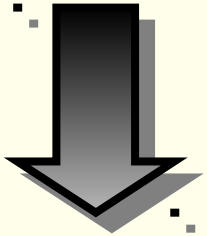
Spontaneous Nipple Discharge

Single Duct



Possible Breast Pathology, Possible Cancer

Multiple Duct



Probable Benign Breast Pathology

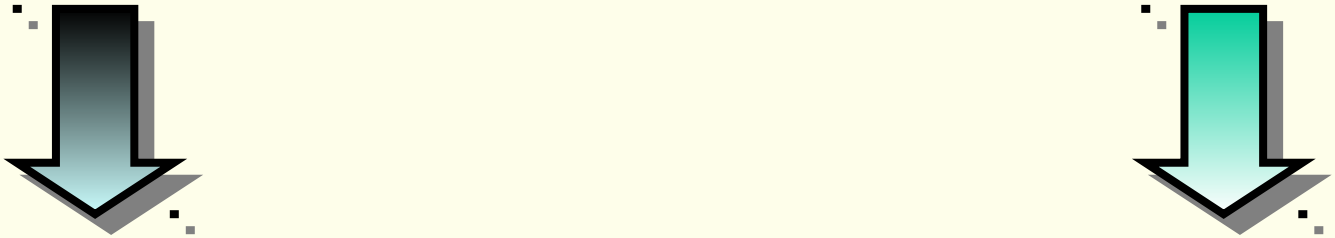
Nipple Discharge:

Spontaneous

Non-Milky
Bilateral/ Multiple Ducts

Milky
Further Work-Up Needed

Non-Milky
Unilateral/ Single Duct Persistent



Follow-Up Only

Further Work-Up

Work Up

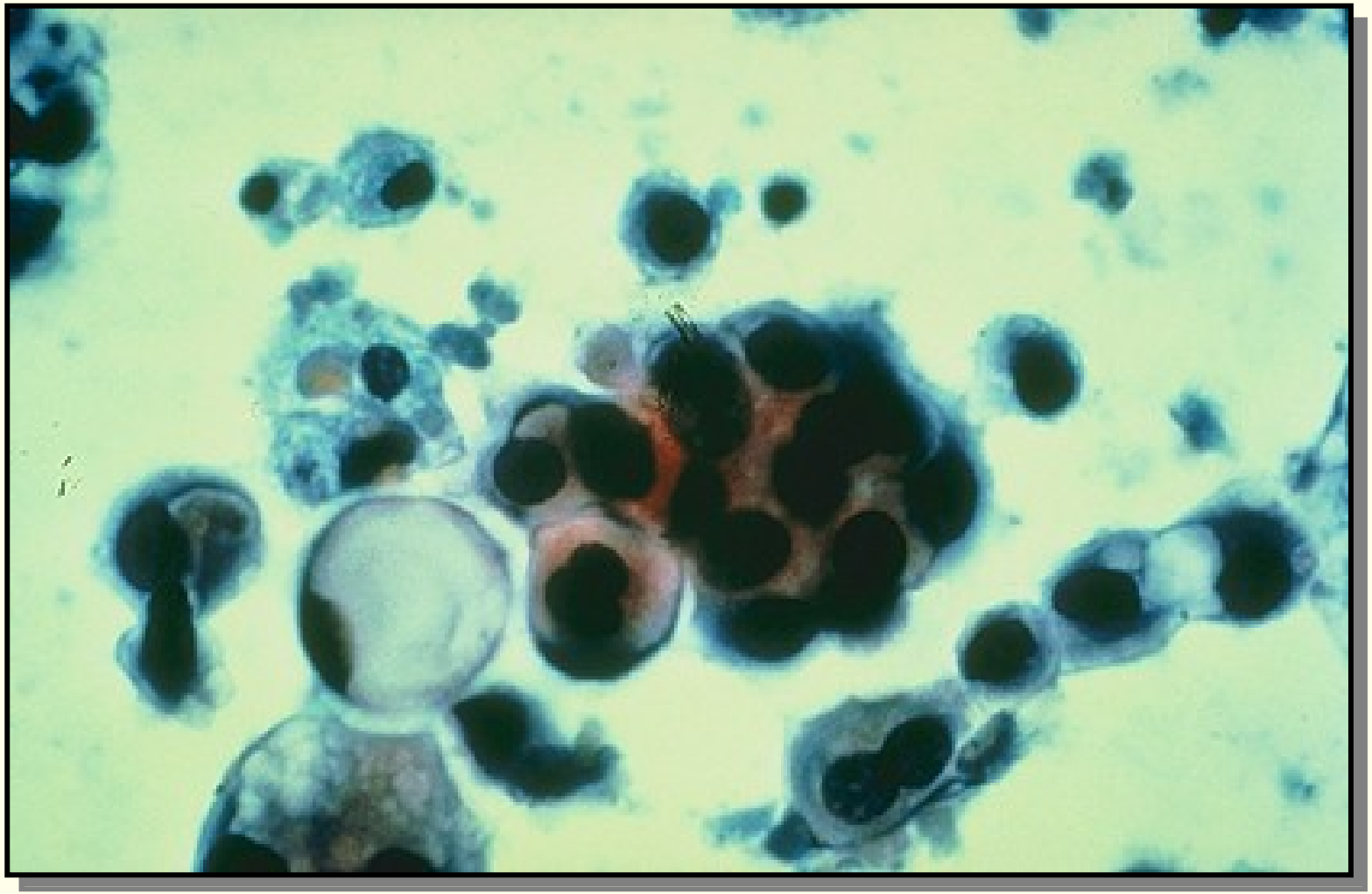
- **Spontaneous Nipple Discharge**
  - Pressure Point Exam
  - Cytology
  - Galactogram

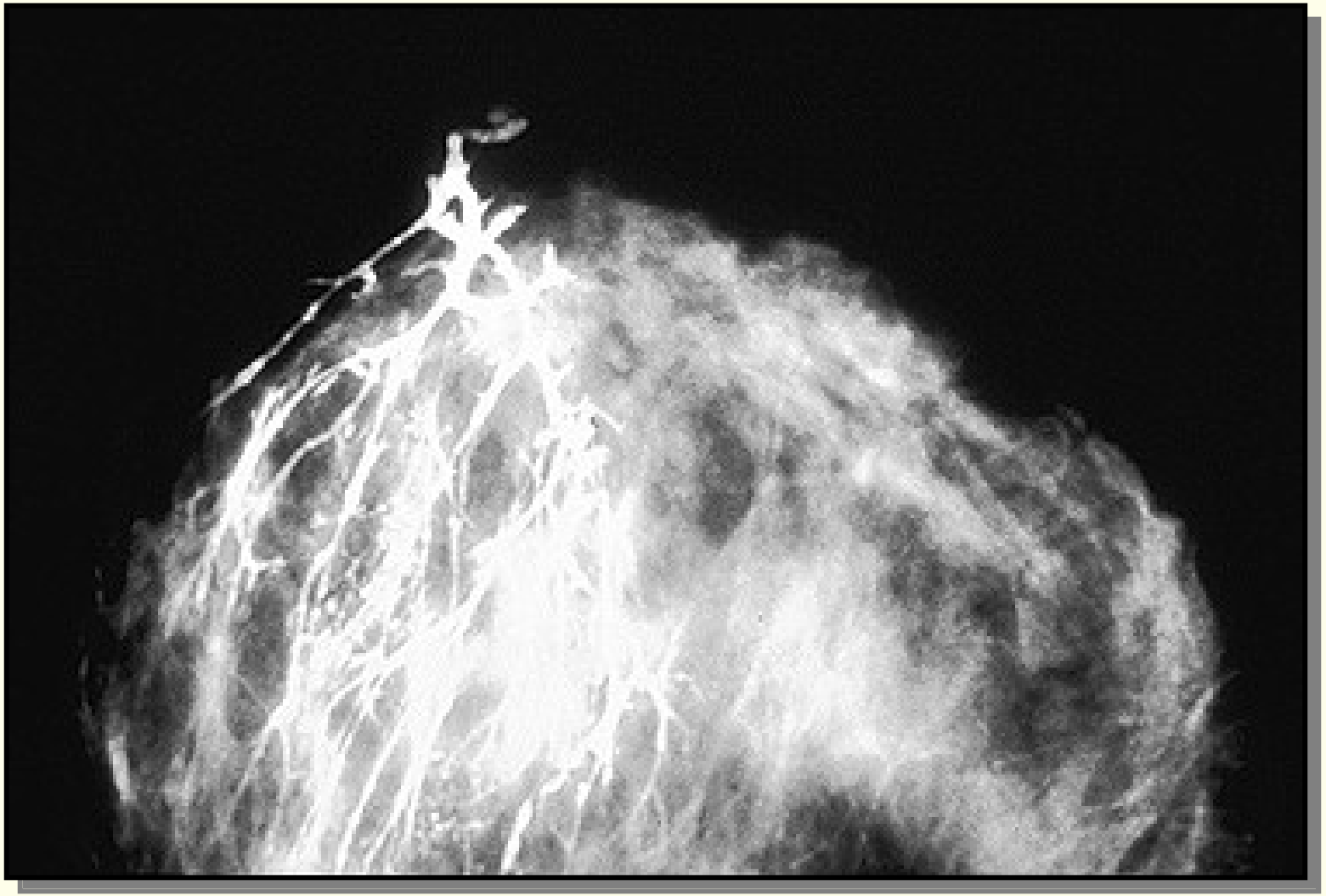
Nipple Discharge

- Physical Examination
  - Elicit discharge from periphery toward nipple
  - Distribute pressure evenly from each number on “clock”
  - Document location

Other Considerations

- ~~GUAIAC~~
- ~~Culture & sensitivity~~

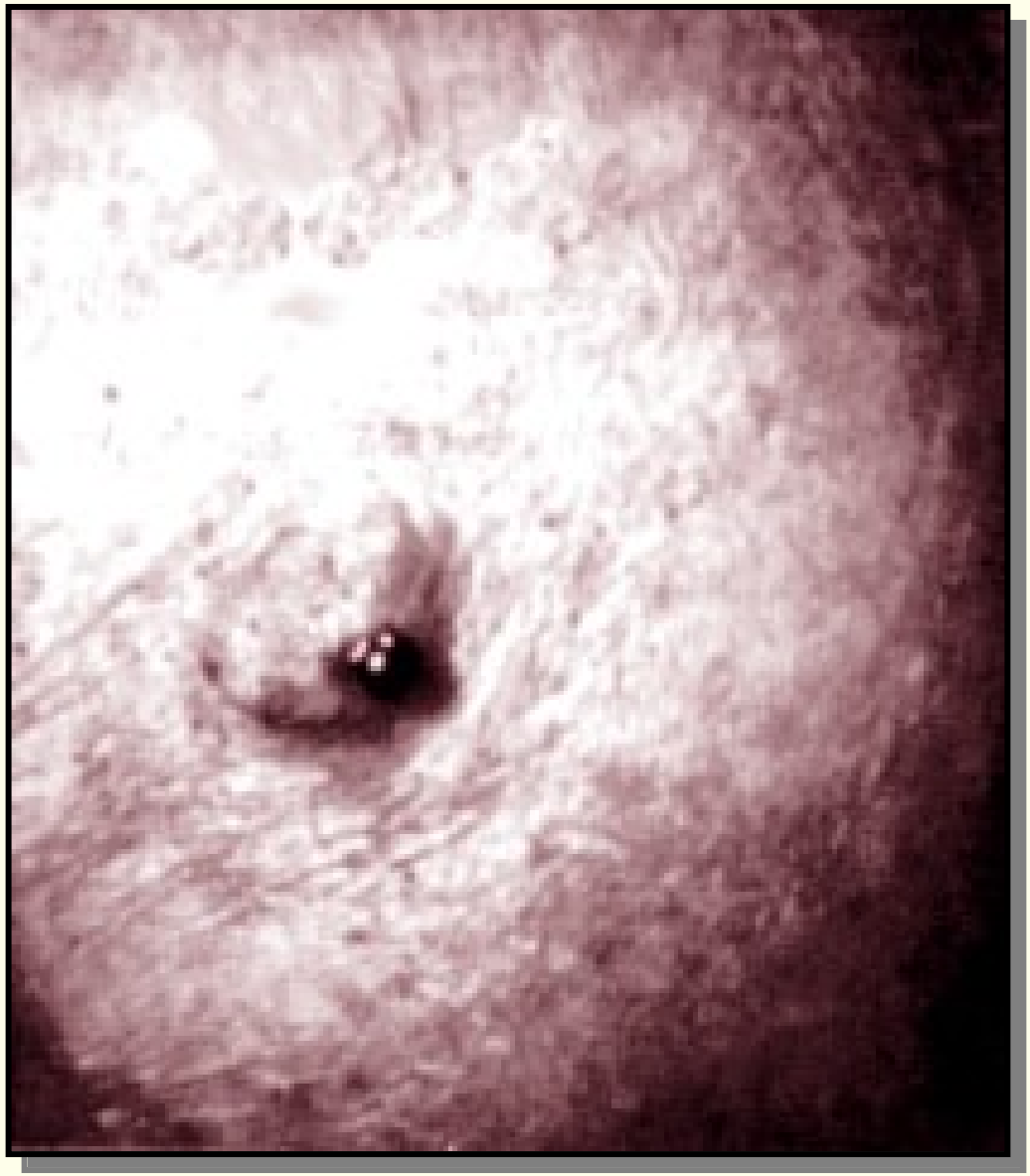


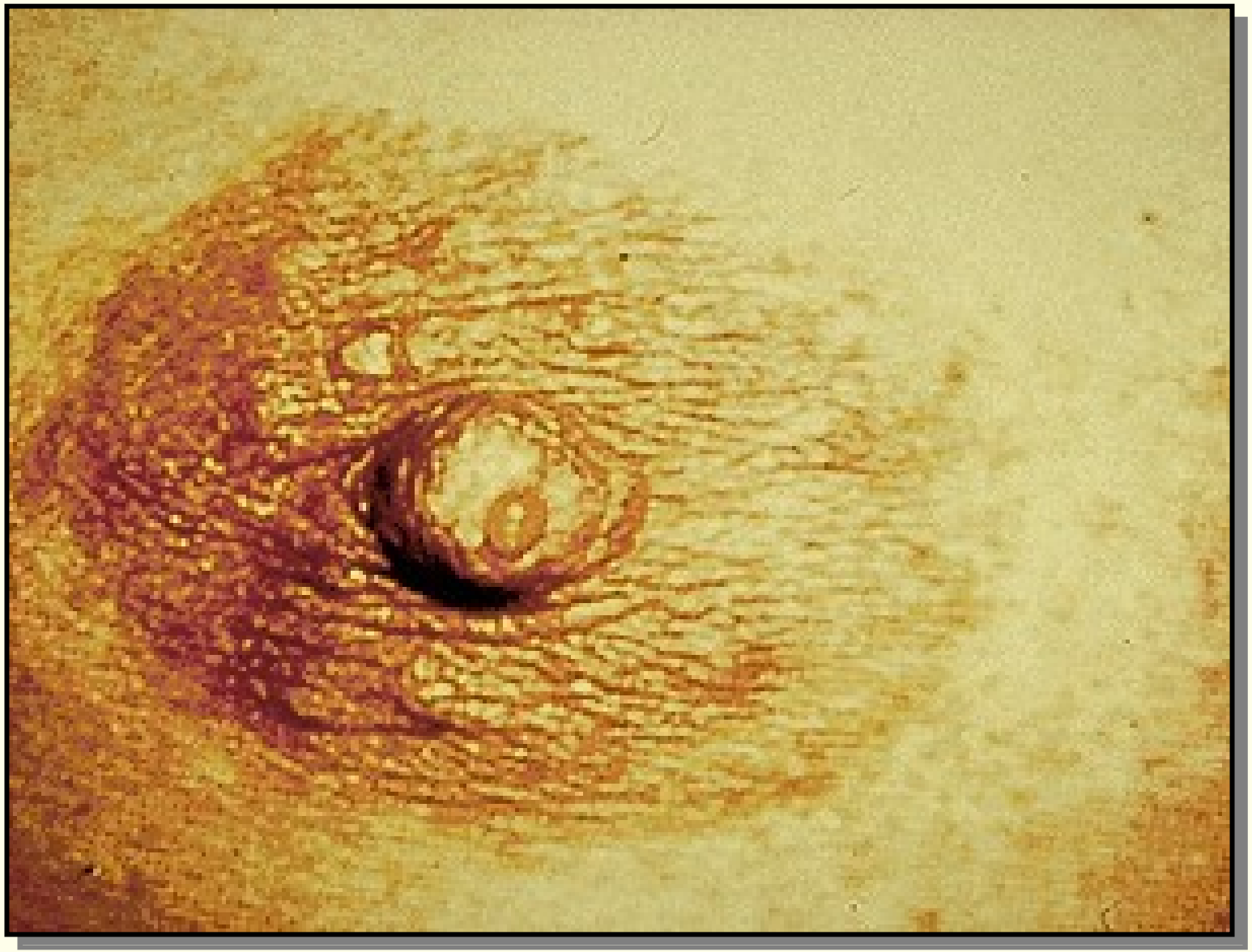


Nipple Discharge

Common causes of persistent spontaneous, unilateral, single duct nipple discharge:

- Intraductal papilloma 35-48%
- Duct ectasia 17-36%
- Carcinoma 5-21%





Nipple Discharge Secondary to Carcinoma

Watery -- 45%

Sanguinous -- 25%

Serosanguinous -- 12

Serous -- 6%

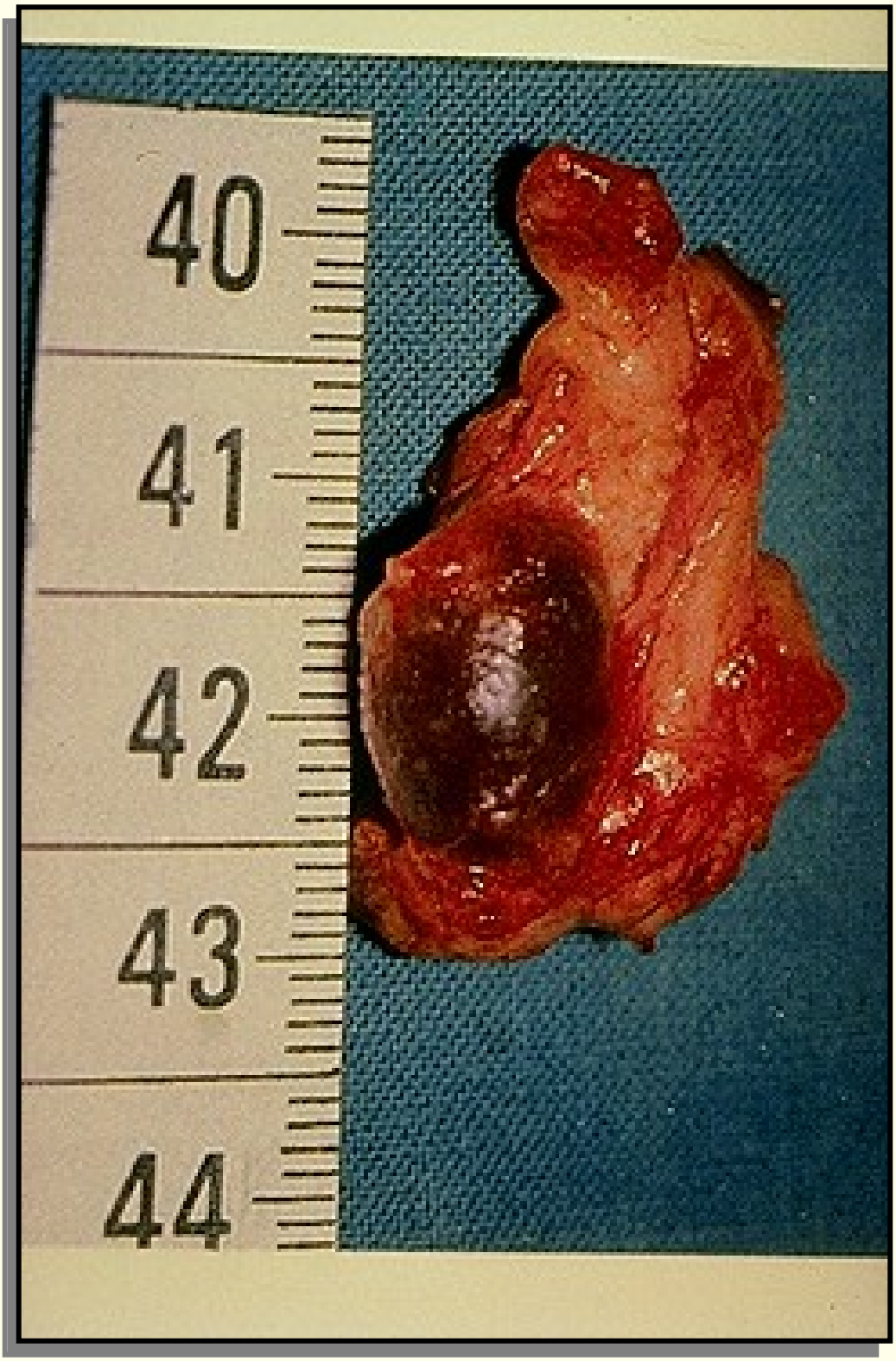
Work Up For Palpable Abnormalities

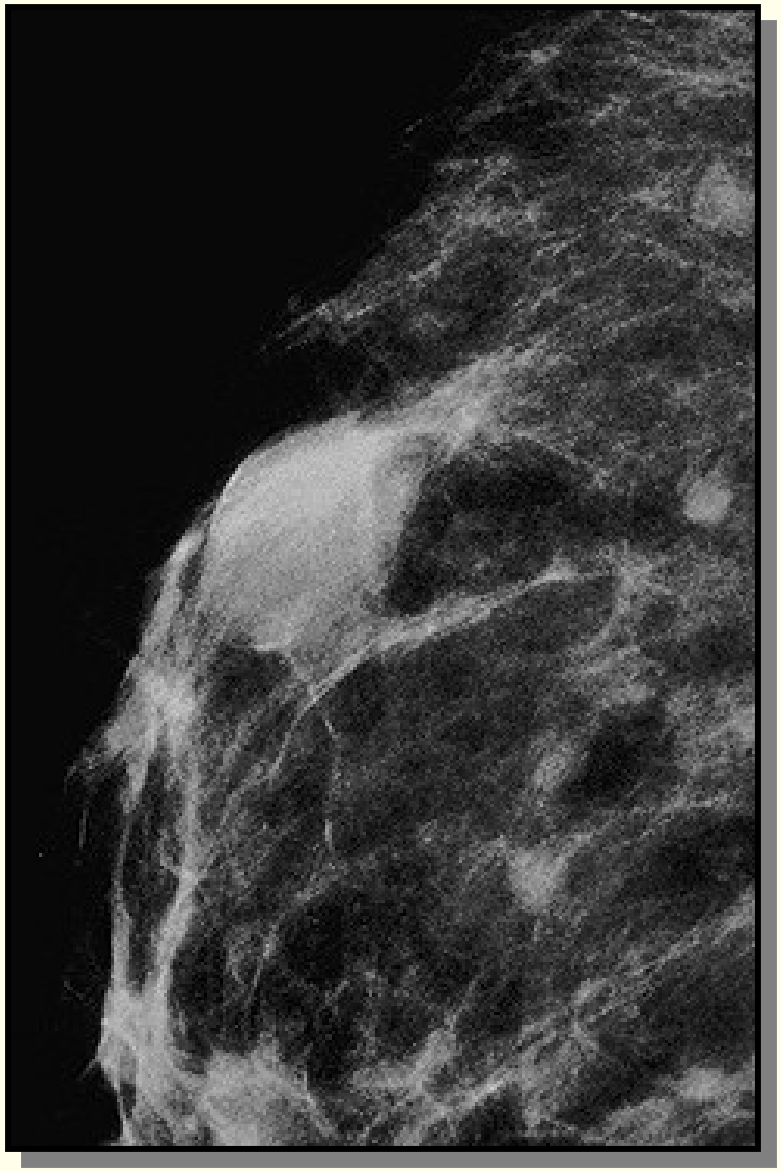
Types Of Breast Masses

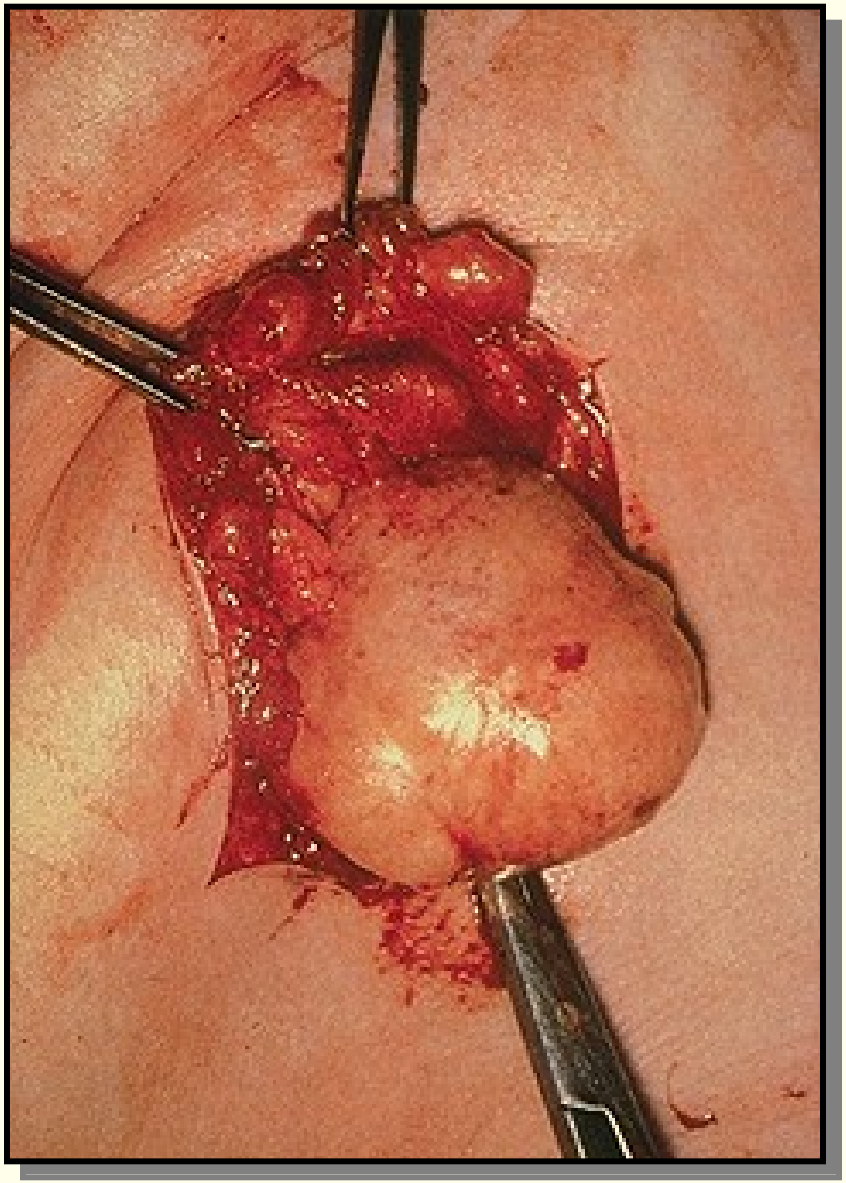
- Cyst
- Fibroadenoma
- Fibrocystic Mass
- Cancer

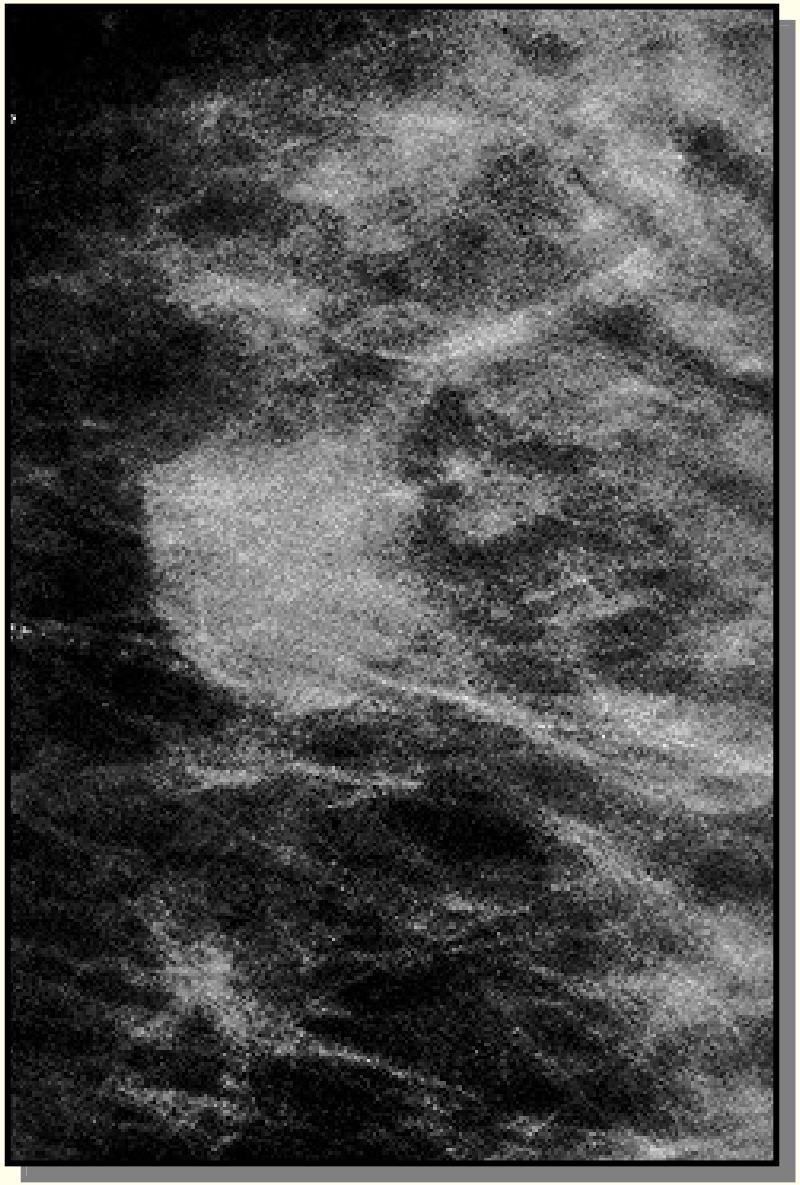
Clinical Breast Examination: Interpretation

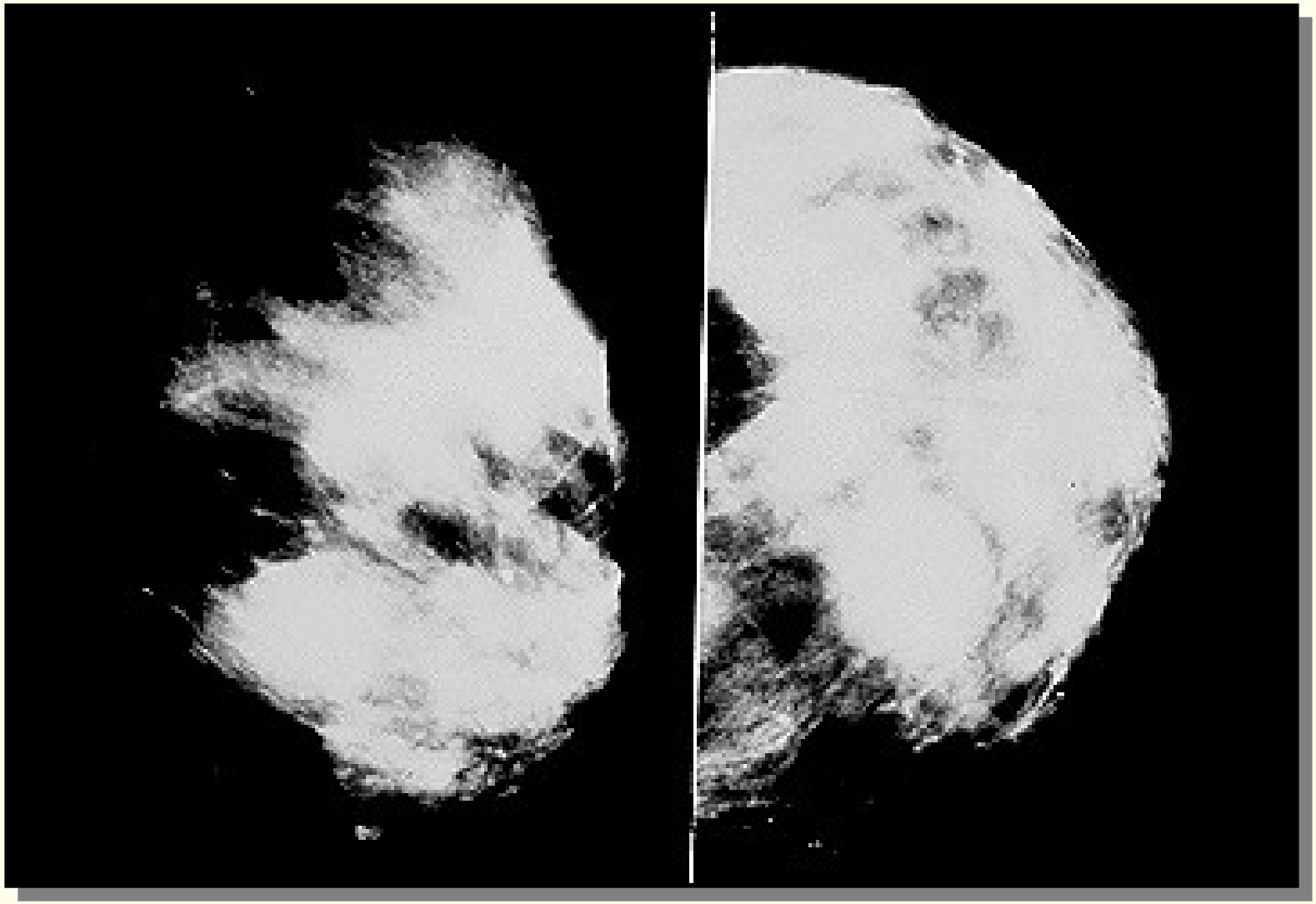
It is impossible to distinguish a cyst from a solid mass by physical examination or mammography.


40
41
42
43
44

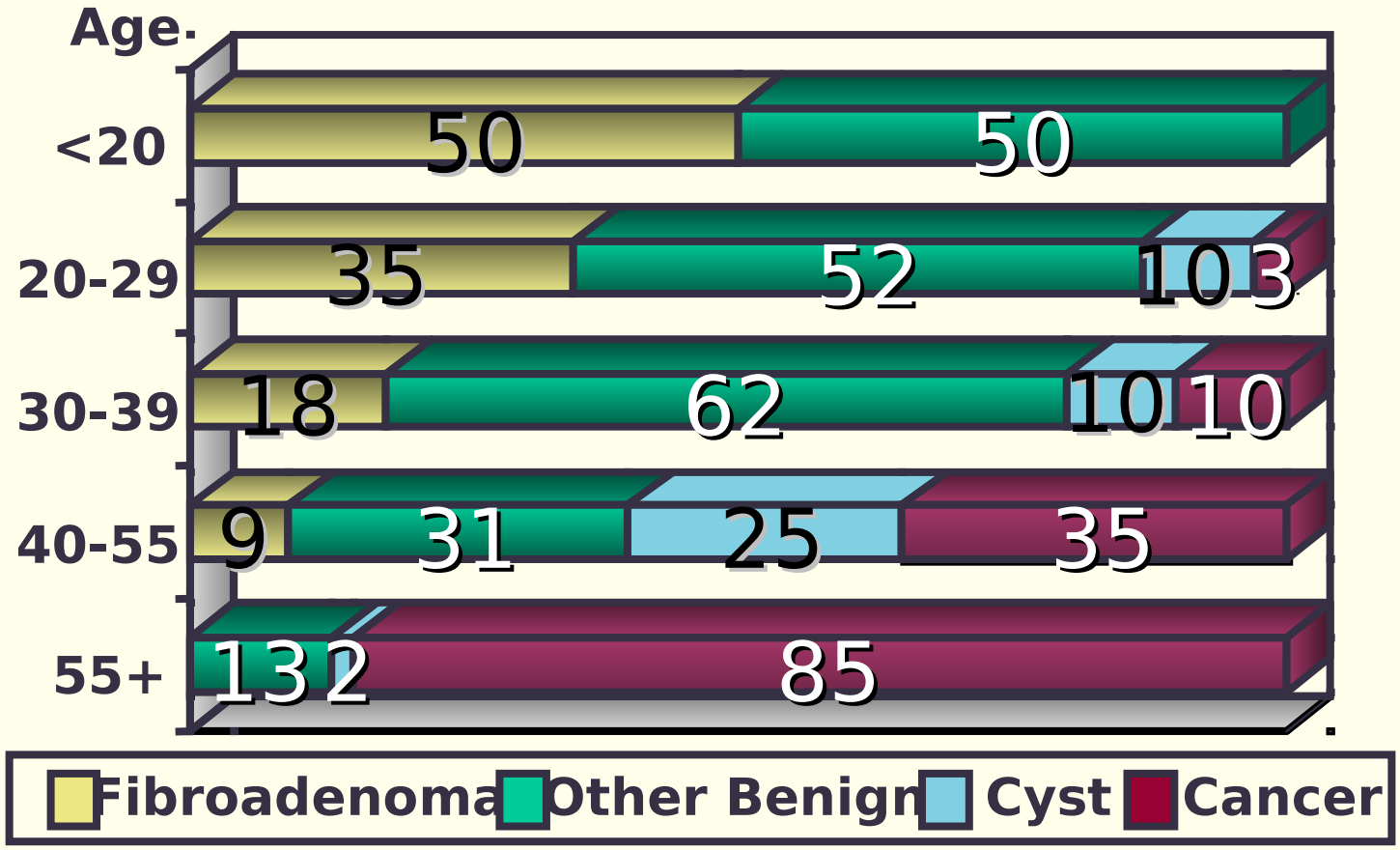








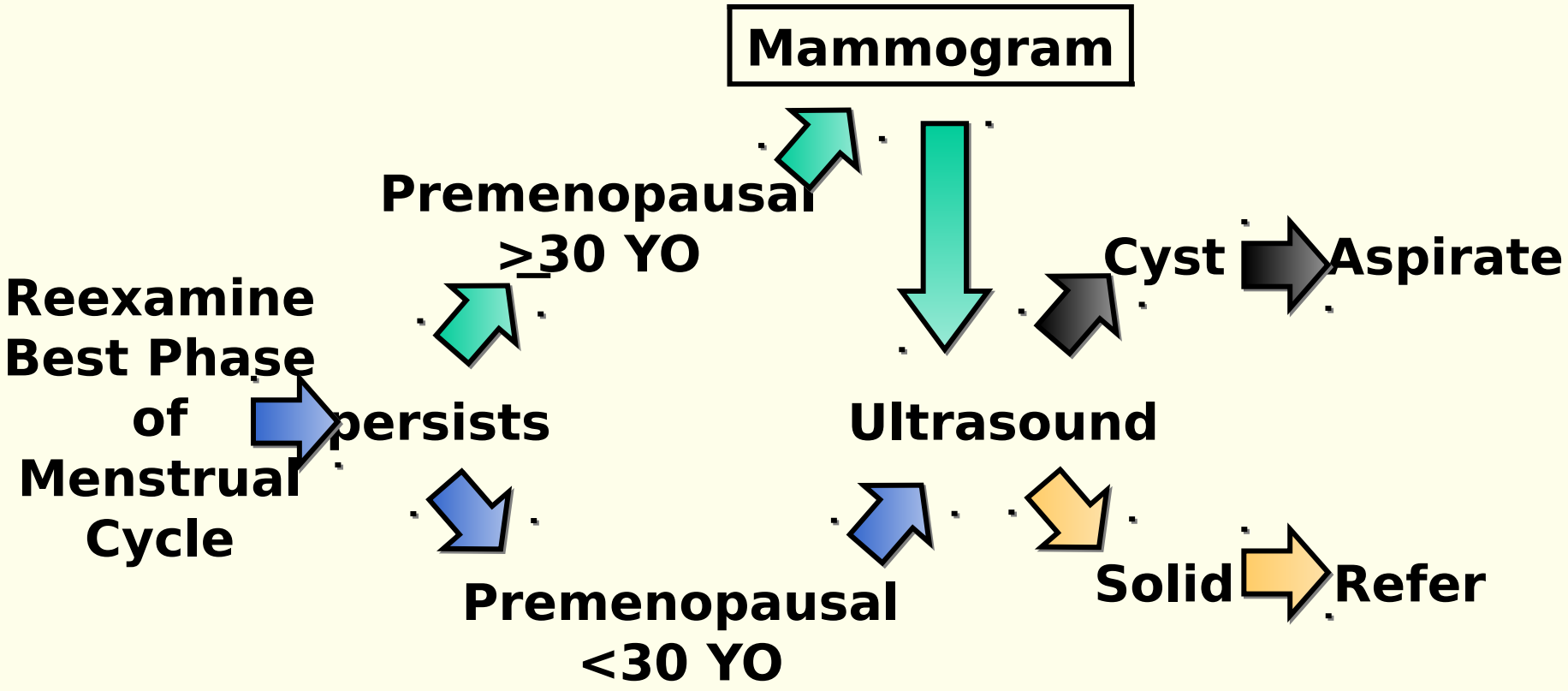
Etiology of Discrete Breast Lumps*



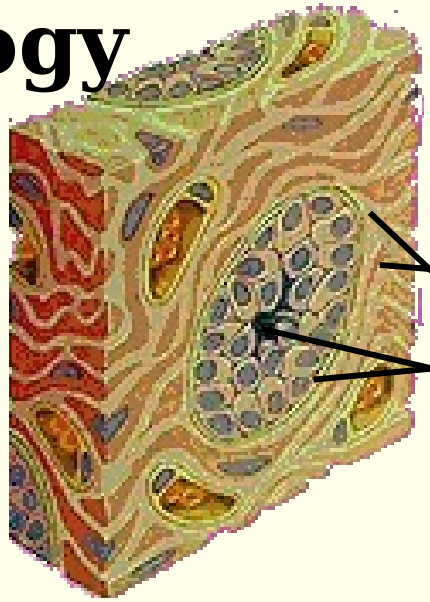
American Cancer Society, Florida Division, Inc.

** Estimated fractions based on pooled data from literature review*

Asymmetrical Palpable Abnormality



Physiology of the Breast



Interval phase

Estrogen

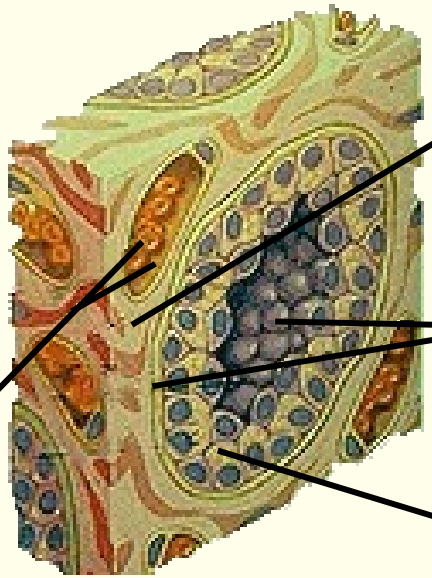
Compact intralobular connective tissue

Acinus with small or closed lumen lined by epithelial cells

Premenstrual phase

Estrogen

Progesterone



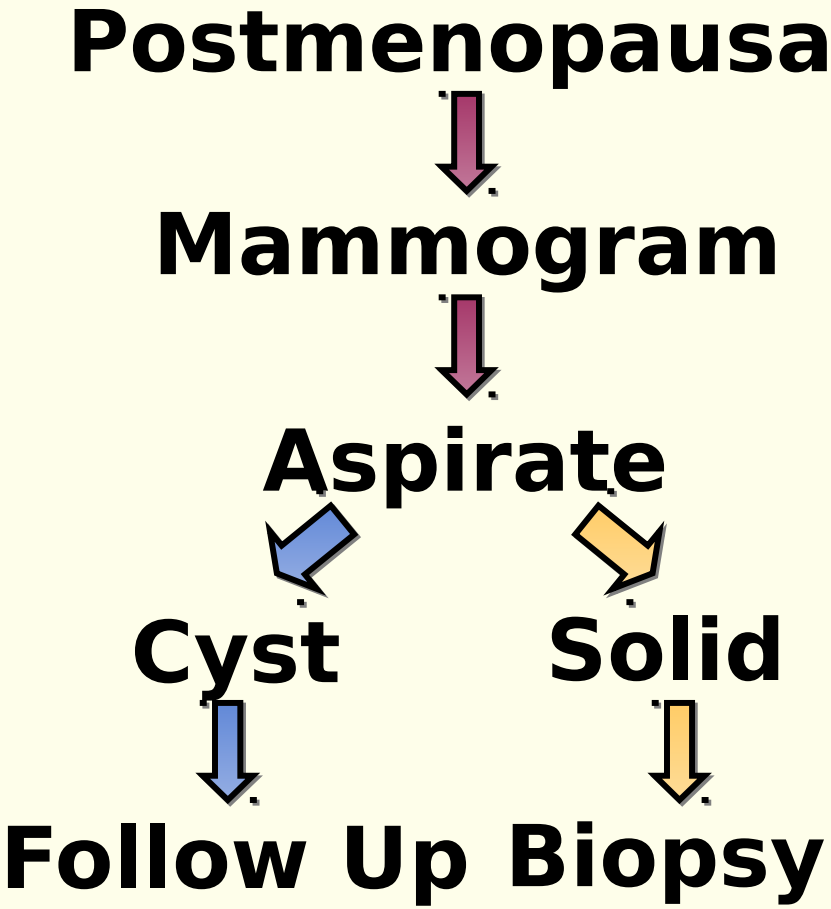
Edematous intralobular connective tissue

Dilatation of acinus and duct

Vascular dilatation and engorgement

Lipid droplets in epithelial cells

Asymmetrical Palpable Abnormality



Work Up of Palpable Breast Abnormalities

Diagnostic mammography in a woman with a breast mass is primarily done to rule out clinically occult lesions in the non-involved tissue, and NOT to rule out cancer in the palpable abnormality.

Postmenopausal Women and Palpable Abnormalities

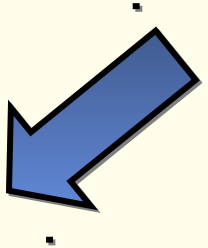
A palpable abnormality in a postmenopausal woman should be assumed to be carcinoma until proven otherwise.

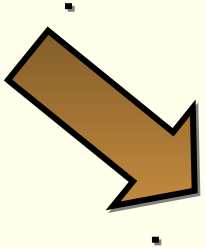
Initial Evaluation of a Breast Mass

- Physical Examination
- Mammogram
- Fine Needle Aspiration

Mass

Cystic vs. Solid





Needle Aspiration*

Ultrasound

Reasons for Needle Aspiration of Breast Mass

- Distinguish a cyst from a solid mass
- Establish the etiology of a cyst as benign
- Provide an expedient diagnosis
- Provide relief of pain in a symptomatic cyst
- Provide for an optimal CBE free of interfering masses

Interpretation of Mammography and Aspiration of Cyst

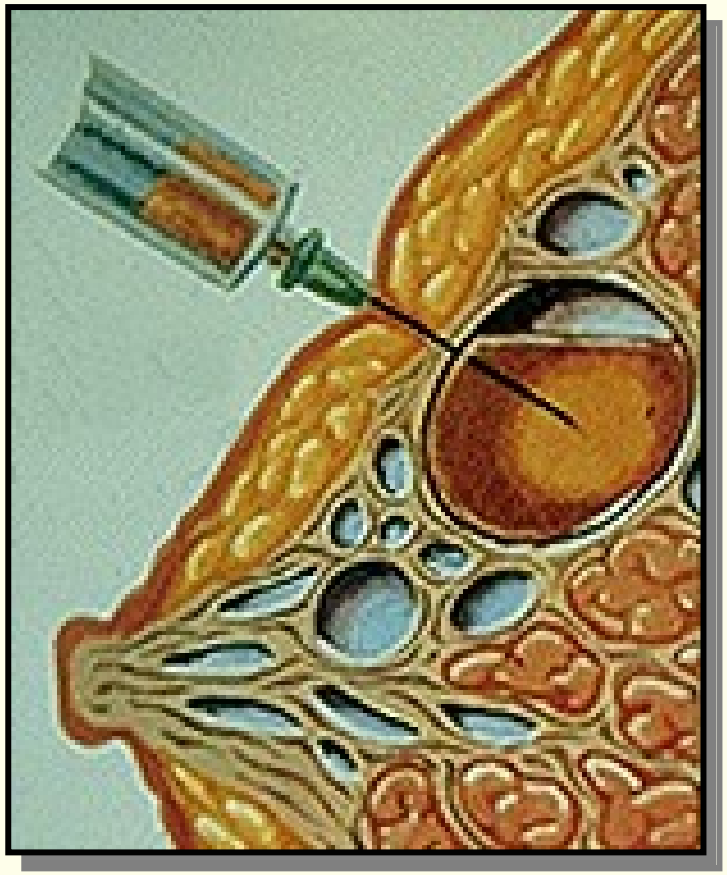
Ensure that aspirated cyst is in same location as any imaged mammographic density consistent with a possible cyst.

Timing of Mammography and Aspiration

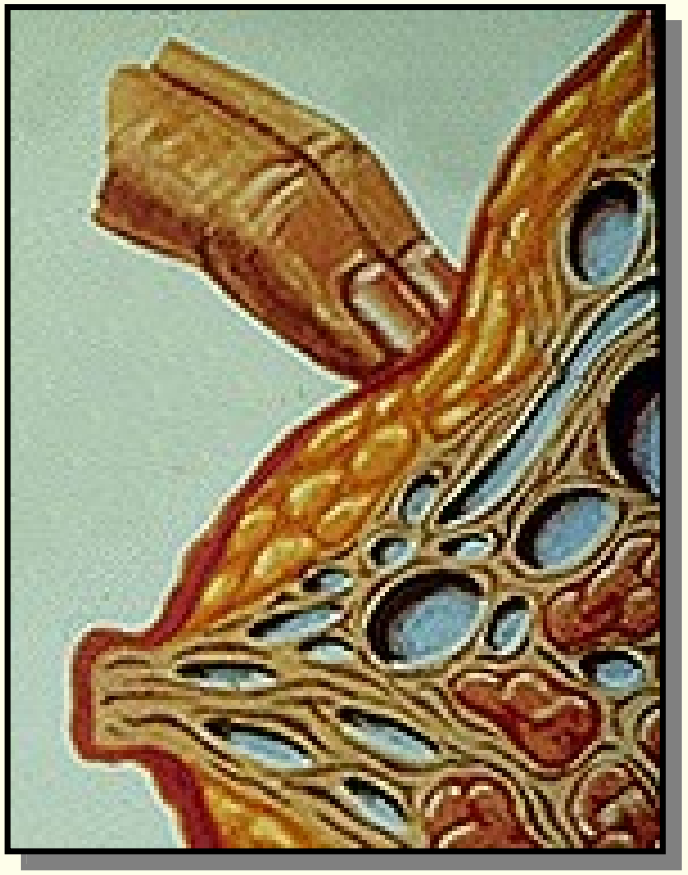
If aspiration is done prior to mammography, avoid radiographic imaging for two weeks to avoid false positive results.

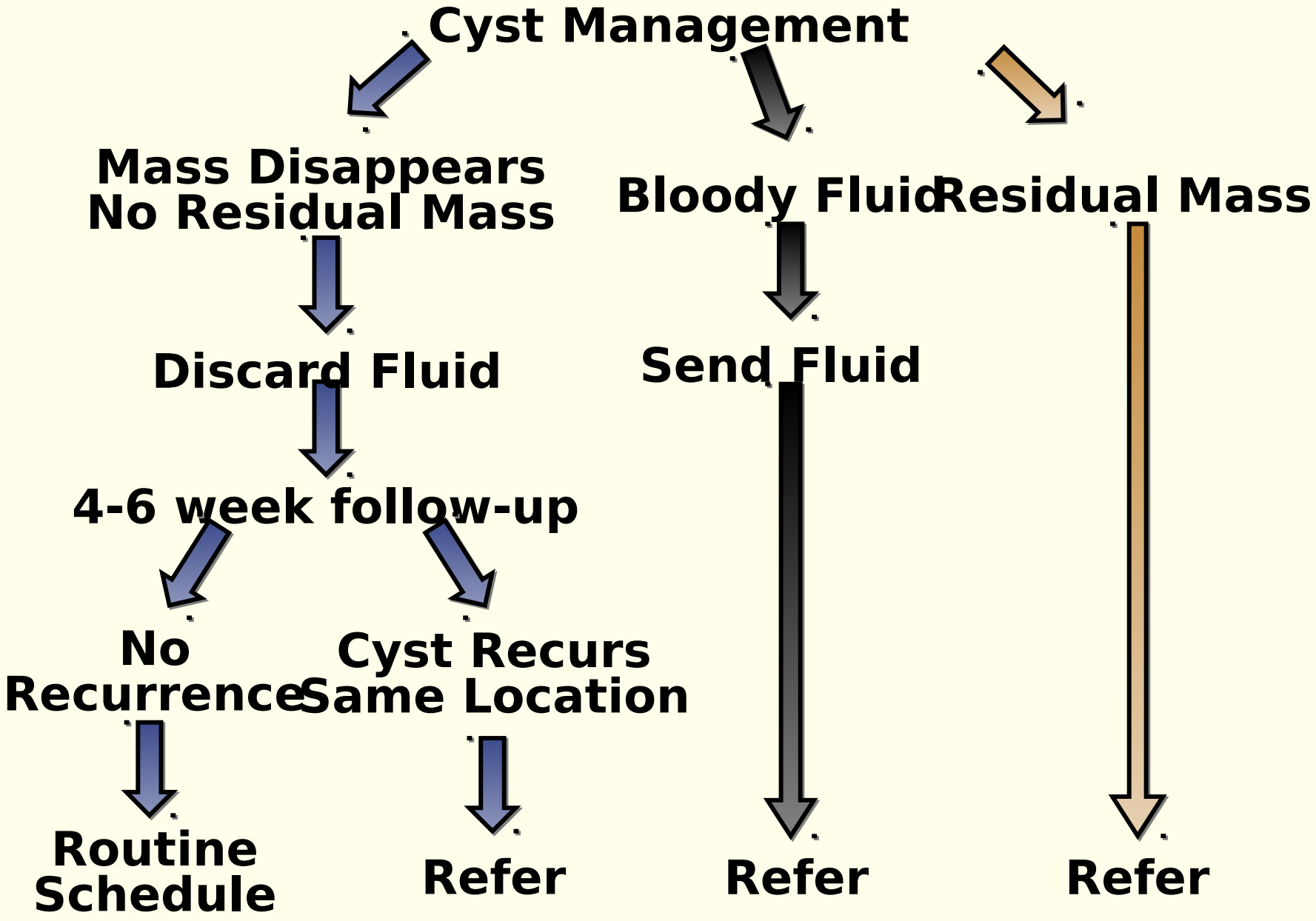
Aspiration

Large fluid-filled cyst



Decompressed cyst




Cyst Management
Mass Disappears
No Residual Mass
Bloody Fluid
Residual Mass
Discard Fluid
Send Fluid
4-6 week follow-up
No
Recurrence
Cyst Recurs
Same Location
Routine
Schedule
Refer
Refer
Refer

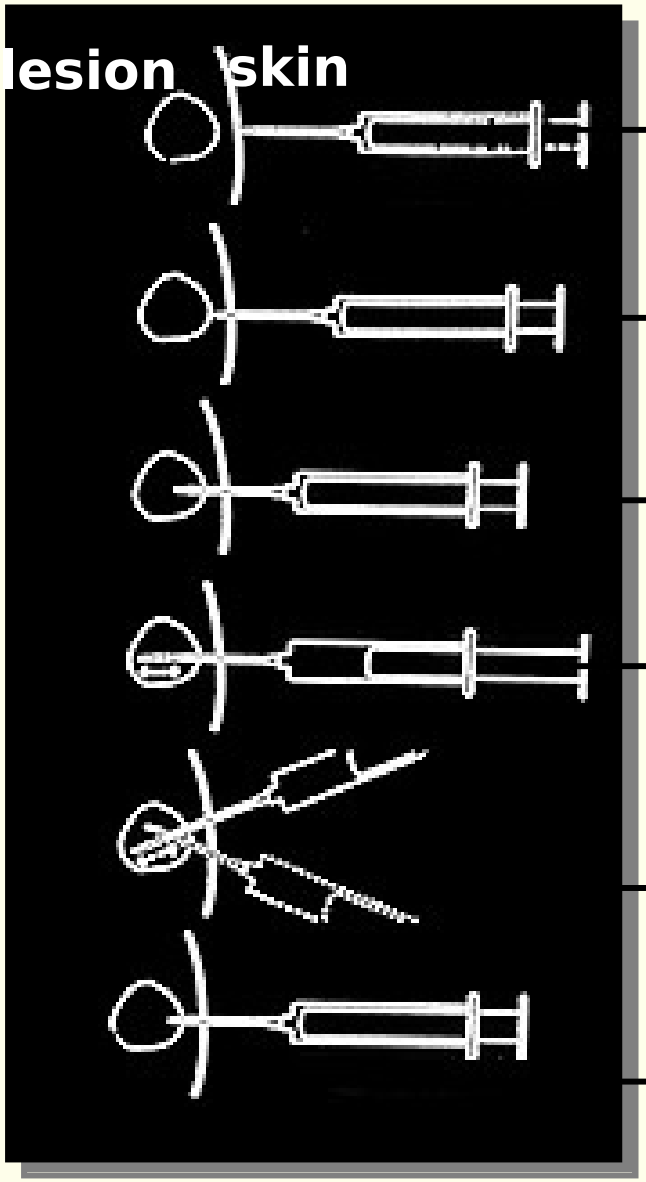
Indications to Analyze Cyst Fluid:

- **Bloody fluid**
- **Fluid from postmenopausal woman not on HT**

Management of Asymmetrical Solid Masses/Thickenings

Approach to Solid Palpable Abnormalities

- Open biopsy
- Core biopsy
- Fine needle aspiration biopsy



1 — No negative pressure inserting the needle

2 — No negative pressure

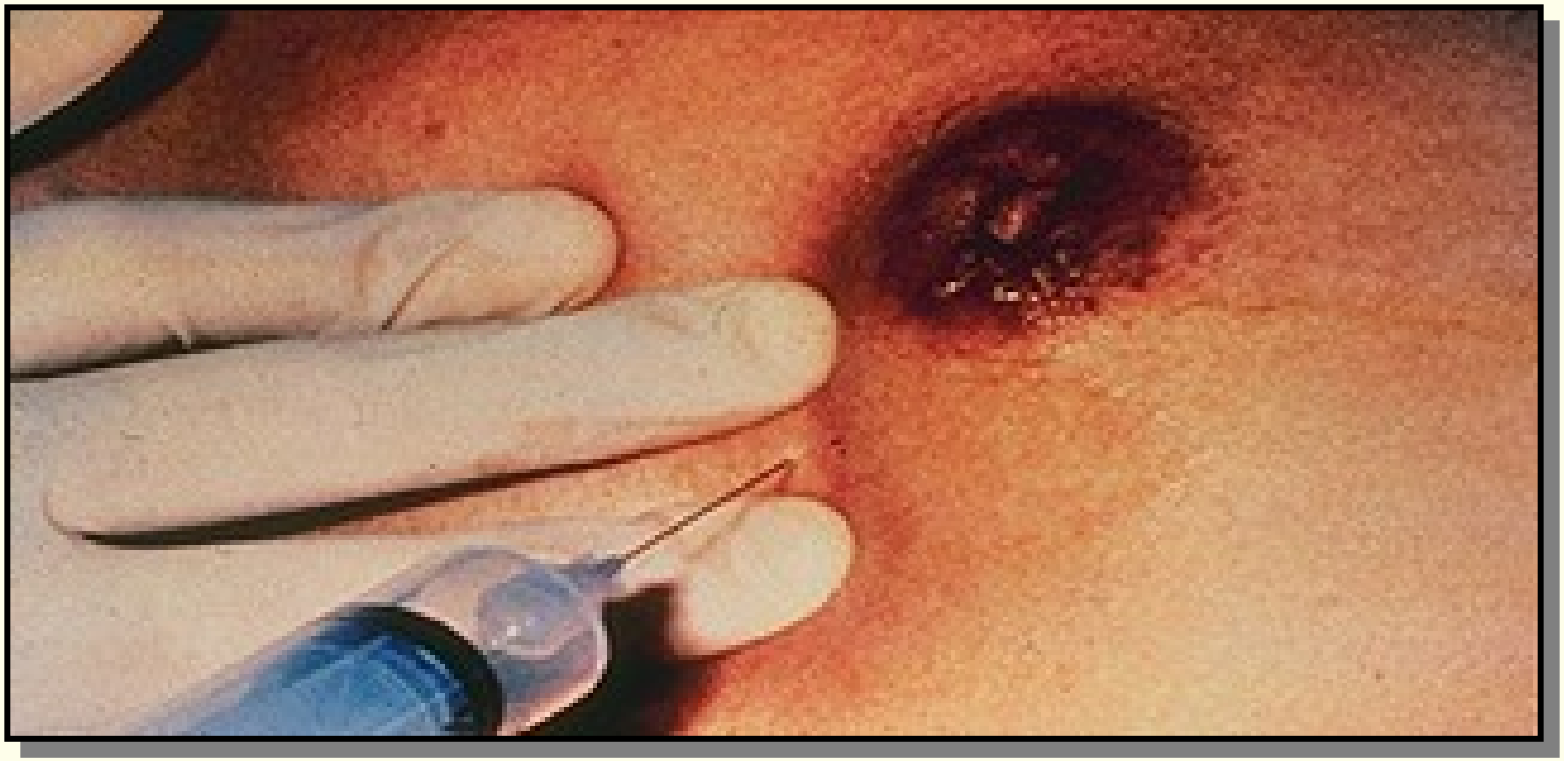
3 — No negative pressure

4 — Aspiration negative pressure

5 — Multiple short strokes 10x within mass
Redirect within mass

6 — Release negative pressure
Withdraw syringe

The false negative rate for fine needle aspiration biopsy is 10%, with a range from 1-33%.



"The use of aspiration cytology to establish a diagnosis of breast carcinoma is time-tested. However, its use to prove benignancy . . . is hazardous." **- Robert V. P. Hutter, M.D.**

CA 1991; 41(5):284

Questions?